

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-22 (Cancelled).

23. (Currently Amended) A method for evaluating traffic dispersion ~~[[at]]~~ associated with at least one exchange in a communications network, the exchange being arranged for applying a set of routing rules ~~[[in]]~~ for selectively allotting ~~to a plurality of links~~ incoming traffic directed toward a given destination to a plurality of links, comprising ~~the steps of:~~

incrementally generating traffic quantums representative of said traffic at an evaluation module independent from a plurality of exchanges and nodes of the communications network; and

producing, at the evaluation module, a distribution of said traffic quantums over said links in said plurality according to said set of routing rules, the distribution thus obtained being statistically representative of the dispersion of said incoming traffic over said plurality of links at said exchange.

24. (Currently Amended) The method of claim 23, comprising ~~the steps of:~~ measuring the volume of said incoming traffic directed toward said given destination; and

generating said traffic quantums by subdividing said measured traffic volume by a given number of loop steps.

25. (Currently Amended) The method of claim 23, comprising ~~the steps of~~:  
determining, for each link in said plurality, a number of call attempts and a  
corresponding number of seizures;

if said number of call attempts equals said number of seizures, setting a load  
limit for applying said set of routing rules for said link equal to the number of circuits  
available in the link; and

if said number of call attempts is greater than said respective number of seizures,  
setting said load limit equal to the outgoing traffic volume measured by the exchange on  
said link.

26. (Currently Amended) The method of claim 25, comprising ~~the steps of~~:  
accepting said traffic quanta to be assigned to a given link only if the sum of  
all the traffic portions assigned to said link is smaller than said load limit set for said link,  
otherwise selecting a next choice in said set of routing rules.

27. (Currently Amended) The method of claim 25, comprising ~~the steps of~~:  
selecting within said network at least a first exchange receiving traffic from at  
least a second and a third exchange; and  
obtaining, based on respective distributions of said quanta of traffic generated  
at said second and third exchanges, traffic dispersion data indicative of:  
the traffic ( $TV_{mxp}$ ) incoming into said first exchange from said second  
exchange; and

the traffic ( $TV_{nxf}$ ) incoming into said first exchange from said third exchange.

28. (Currently Amended) The method of claim 27, comprising ~~the step of~~ obtaining, based on respective distributions of said quantum of traffic, distribution data representative of the traffic toward a given destination generated at said first exchange different from traffic ( $TV_{mxf}$ ,  $TV_{nxf}$ ) incoming from said second and third exchanges.

29. (Currently Amended) The method of claim 27, comprising ~~the steps of~~:  
partitioning the traffic outgoing from said first exchange based on the respective routing rules into:

a first group, including traffic components coming from said second exchange using a given subset of links in said set of routing rules; and

a second group, including traffic components coming from said third exchange using the whole set of links in said set of routing rules.

30. (Currently Amended) The method of claim 29, comprising ~~the steps of~~:  
analysing the traffic volume ( $TV_{kxy}$ ) directed toward a given destination within said network and carried by a respective link coming out of said first exchange; and  
determining a first component of said traffic volume ( $TV_{kxy}$ ) coming from said second exchange as

$$TV_{kxy, m} = \frac{TV_{mxf} \times TV_{kxy}}{\sum_{\delta} TV_{kx\delta}}$$

wherein  $\Delta$  is the subset of links used by a current routing rule in said first exchange.

31. (Currently Amended) The method of claim 30, comprising the steps of:  
analysing the traffic volume ( $TV_{kxy}$ ) directed toward a given destination within said network and carried by a respective link coming out of said first exchange; and  
determining a first component of said traffic volume ( $TV_{kxy}$ ) coming from said third exchange as

$$TV_{kxy, n} = \frac{TV_{nkr} \times (TV_{kxy} - TV_{kxy, A})}{\sum_{\delta \in \Phi} (TV_{kx\delta} - TV_{kx\delta, A})}$$

wherein  $TV_{kxy, A} = \sum_{\alpha \in A} TV_{kxy, \alpha}$  is the sum of all the results obtained for said second exchange for all the links used by said routing rule and  $\Phi$  is the whole set of links used by a current routing rule in said first exchange.

32. (Currently Amended) The method of claim 23, wherein said steps of incrementally generating traffic quantum representative of said traffic and producing a distribution of said traffic quantum are performed in the absence of interference with operation of said communications network.

33. (Currently Amended) A system for evaluating traffic dispersion [[at]] associated with at least one exchange in a communications network, the exchange being arranged for applying a set of routing rules [[in]] for selectively allotting to a

~~plurality of links~~ incoming traffic directed toward a given destination to a plurality of links,  
~~comprising an evaluation module configured for:~~

an evaluation module independent from a plurality of exchanges and nodes of  
the communications network, wherein the evaluation module incrementally generating  
generates traffic quantum representative of said traffic[[:]] and

~~producing~~ produces a distribution of said traffic quantum over said links in said  
plurality according to said set of routing rules, the distribution thus obtained being  
statistically representative of the dispersion of said incoming traffic over said plurality of  
links at said exchange.

34. (Previously Presented) The system of claim 33, comprising a measuring  
module for measuring the volume of said incoming traffic directed toward said given  
destination, said evaluation module being configured for generating said traffic  
quantum by subdividing the traffic volume measured by said measuring module by a  
given number of loop steps.

35. (Previously Presented) The system of claim 33, comprising:  
a measuring module configured for determining, for each link in said plurality, a  
number of call attempts and a corresponding number of seizures; and  
a routing rules generating module for setting a load limit for applying said set of  
routing rules, said routing rules generating module being configured for:

if said number of call attempts equals said number of seizures, setting a load limit for applying said set of routing rules for said link equal to the number of circuits available in the link, and

if said number of call attempts is greater than said respective number of seizures, setting said load limit equal to the outgoing traffic volume measured by said measuring module on said link.

36. (Previously Presented) The system of claim 33, comprising a routing rules generating module configured for:

accepting said traffic quantum to be assigned to a given link only if the sum of all the traffic portions assigned to said link is smaller than said load limit set for said link, otherwise selecting a next choice in said set of routing rules.

37. (Previously Presented) The system of claim 33, for use in a network comprising at least a first exchange receiving traffic from at least a second and a third exchange, comprising at least one said evaluation module configured for:

obtaining, based on respective distributions of said quantum of traffic generated at said second and third exchanges, traffic dispersion data indicative of:

the traffic ( $TV_{mxp}$ ) incoming into said first exchange from said second exchange; and

the traffic ( $TV_{nrx}$ ) incoming into said first exchange from said third exchange.

38. (Previously Presented) The system of claim 37, wherein said at least one evaluation module is configured for obtaining, based on respective distributions of said quantum of traffic, distribution data representative of the traffic toward a given destination generated at said first exchange different from traffic ( $TV_{mxp}$ ,  $TV_{nxr}$ ) incoming from said second and third exchanges.

39. (Previously Presented) The system of claim 37, wherein said evaluation module is configured for:

partitioning the traffic outgoing from said first exchange based on the respective routing rules into:

a first group, including traffic components coming from said second exchange using a given subset of links in said set of routing rules; and

a second group, including traffic components coming from said third exchange using the whole set of links in said set of routing rules.

40. (Previously Presented) The system of claim 39, wherein said at least one valuation module is configured for:

analysing the traffic volume ( $TV_{kxy}$ ) directed toward a given destination within said network and carried by a respective link coming out of said first exchange; and

determining a first component of said traffic volume ( $TV_{kxy}$ ) coming from said second exchange as

$$TV_{kxy, m} = \frac{TV_{mxp} \times TV_{kxy}}{\sum_{\delta} TV_{kx\delta}}$$

wherein  $\Delta$  is the subset of links used by a current routing rule in said first exchange.

41. (Previously Presented) The system of claim 40, wherein said evaluation module is configured for:

analysing the traffic volume ( $TV_{kxy}$ ) directed toward a given destination within said network and carried by a respective link coming out of said first exchange; and

determining a first component of said traffic volume ( $TV_{kxy}$ ) coming from said third exchange as

$$TV_{kxy, n} = \frac{TV_{nxt} \times (TV_{kxy} - TV_{kxy, \Delta})}{\sum_{\delta \in \Phi} (TV_{kx\delta} - TV_{kx\delta, \Delta})}$$

wherein  $TV_{kxy, \Delta} = \sum_{\alpha \in \Delta} TV_{kxy, \alpha}$  is the sum of all the results obtained for said second exchange for all the links used by said routing rule and  $\Phi$  is the whole set of links used by a current routing rule in said first exchange.

42. (Previously Presented) The system of claim 33, wherein said evaluation module is configured for performing steps of incrementally generating traffic quantum representative of said traffic and producing a distribution of said traffic quantum in the absence of interference with operation of said communications network.

43. (Previously Presented) A communication network including a plurality of exchanges, comprising a system according to any one of claims 33-42.



44. (Currently Amended) A computer-readable medium storing instructions for execution by a processing system ~~program product capable of being loaded in the memory of at least one computer and including~~ the instructions comprising software code portions that when executed by the processing system perform ~~for performing the method of any one of claims 23-32 when the product is capable of being run on a computer.~~